201-15230

Anh Nguyen
05/04/04 11:46 AM

To: NCIC HPV@EPA
cc:
Subject: Fw: Environmental Defense comments on Phenol, Heptyl Derivatives (CAS# 72624-02-3)

----- Forwarded by Anh Nguyen/DC/USEPA/US on 05/04/2004 11:45 AM -----

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05/04/2004 09:34 AM

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Subject: Environmental Defense comments on Phenol, Heptyl Derivatives (CAS# 72624-02-3)

(Submitted via Internet 5/4/04 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov, boswell.karen@epa.gov, chem.rtk@epa.gov, lucierg@msn.com and sarah_Mclallen@americanchemistry.com)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for Phenol, Heptyl Derivatives (CAS# 72624-02-3).

The test plan and robust summaries for phenol, heptyl derivatives (HPL) were submitted by the Petroleum Additives Panel of the American Chemistry Council. The submission is well-written, concise and informative. The HPLs appear to represent three derivatives that are the product of reacting phenol with heptene. The derivatives are p-heptylphenol, o-heptylphenol and diheptylphenol, with the p-heptylphenol representing about 75% of the total mixture and the other two 10-15% each.

The HPL mixture, according to the test plan, is used to manufacture higher molecular weight lubricating components, which are sold to companies who prepare finished lubricants by blending them with oils and other unspecified additives. The test plan maintains that unreacted HPLs are estimated to be in low concentrations in finished products and are not expected to be released from those end products. We recommend that the sponsor provide experimental and/or environmental data to substantiate this claim.

The sponsor proposes to include all three HPLs as a category. While we tend to agree that this seems like a reasonable category based on chemical structures, the sponsor did not explicitly justify the establishment of this category. Therefore, we recommend that the sponsor provide additional details, if available, on comparative metabolism and toxicities of the three HPLs.

The test plan objectively presents available data on SIDS endpoints and a number of studies are proposed to address knowledge gaps. We agree with those proposals although we do have some recommendations regarding the conduct of those studies, including the need to characterize the test substance used.

Specific comments are as follows:

1. The HPLS are only slowly biodegraded. Are they expected to bioaccumulate in the environment if released from industrial facilities? Are data available on the amount of HPLs released into air or water?

2. The HPLs are toxic to fish, with a reported LC50 of 0.56 mg/L. However, the composition of the test substance used in this study was not provided in the robust summaries. Were the proportions of the three HPLs similar to the composition depicted in the first paragraph of this review? We recommend that the mixture used in the proposed studies on aquatic invertebrates and algae be consistent with the above-mentioned composition.

3. HPLs are not mutagenic in the Ames test, but no in vivo studies are available. As described above, the sponsor needs to provide data on the composition of the HPLs used in the Ames test and we recommend that the composition of the test substance used in the proposed chromosomal aberration studies be similar to that used in the ecotoxicity studies.

4. The sponsor proposes to conduct a combined repeat dose/reproductive/ developmental toxicity study on the HPLs, as no data are available on these three endpoints. We agree with this proposal, but again the test substance used must address the concerns raised in comments 2 and 3.

Thank you for this opportunity to comment.

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